Course Syllabus

1. **Program of Study**   Bachelor of Science (Computer Science)
   Faculty/Institute/College   Mahidol University International College
   Mahidol University

   Course Code ICCS 333   **Course Title** Introduction to Cognitive Science

2. **Number of Credits**   **4 (Lectures/lab)** (4 - 0)

3. **Prerequisite(s)**   ICCS 324

4. **Type of Course**   Elective

5. **Trimester / Academic Year**   Trimester II / Year 2005 - 2006

6. **Course Description**
   Principles in psychology, neuroscience, philosophy, artificial intelligence, linguistics, and anthropology that support cognitive science; links between mind and intelligence; mental and computer representations of knowledge and computational procedures; roles of visual representations in human thinking; psychological processes based on neural connections; philosophical problems related to cognitive science

7. **Course Objective(s)**
   By the end of the course students should be able to describe and explain:
   - The interdisciplinary nature of cognitive science
   - The fundamentals of various disciplines that are combined into cognitive science
   - The interrelationships among these disciplines that support cognitive science

8. **Course Outline**

Week	Topic Lecture	Hour	Instructor
1	Introduction	4	
2	Cognitive Psychology: The Architecture of the Mind	4	
3	Cognitive Psychology: Further Explorations	4	
4	Artificial Intelligence: Knowledge Representation, Search, Control, and Learning	4	1. Associate Professor Dr. Somphong Sahaphong, M.D.
5	Linguistics: The Representation of Language	4	2. Dr. Udom Silparcha
6	Neuroscience: Brain and Cognition	4	3. Dr. Krittaya Leelawong
7	Philosophy: Foundations of Cognitive Science	4	
8	Language Acquisition and Semantics	4	
9	Natural Language Processing	4	
10	Vision	4	
11	Conclusion	4	
	Total	44	

9. **Teaching Method(s)**
   Lectures, in-class practical exercises, discussion, and self-study

10. **Teaching Media**
    Text and teaching materials, Powerpoint, and handouts

11. **Measurement and Evaluation of Student Achievement**
    Assessment made from stated criteria: students with 85% obtain grade A

12. **Course Evaluation**
    1. Participation   5%   3. Mid-term exam   30%
    2. Assignments (×5)   25%   4. Final exam   40%

13. **Reference(s)**
    Stillings, N.A., et al., 1995. Cognitive Science: An Introduction – 2nd Ed., MIT press, Cambridge, Mass.
    Additional readings set by the instructors

14. **Course Instructors**
    Associate Professor Dr. Somphong Sahaphong, M.D.
    Dr. Udom Silparcha
    Dr. Krittaya Leelawong

15. **Course Coordinator**
    Dr. Udom Silparcha